

Water Analysis

There are two kinds of water pollution: point source pollution and non-point source pollution.

Point source pollution is when you know exactly where the pollution entered the water system. Perhaps you are helping your dad change the oil in the family car. Instead of taking the oil somewhere to be recycled, your dad walks to the end of the driveway and dumps the oil down the storm drain. We can point to the exact place the pollutant came from (the oil pan) and the exact place it entered the water system (the storm drain). Other examples of point pollution include pipes, drains, ditches, and channels.

Non-point source pollution is when the pollutant enters the water system over a large area. Imagine you help your mom fertilize the lawn one afternoon. That night it rains and the fertilizer runs off your lawn and into the water system. Since the pollutant ran off your entire yard, it's **non-point source pollution**. We cannot determine the exact spot where the pollutant originated.



What Do You Remember?

Read each story. Write a "P" next to those that are point pollution and "NP" next to those that are non-point pollution.

_____ Kyle is filling up the gas tank on his boat at a marina. He accidentally lets the gas tank run over and the gas flows into the lake.

_____ A large storm rolls through town. As the water washes over driveways, sidewalks, parking garages, and streets it picks up dirt, trash, and pollutants and washes them into the river.

_____ A new house is being built in your neighborhood. Before the grass is planted in the yard, a thunderstorm rolls in. The rain washes the dirt from the yard into the storm drain.

_____ A drainage pipe from a factory is dumping pollutants into a nearby stream.





Career Corner

Hydrologist - Hydrologists take a practical look at the water cycle. They are hired to analyze a specific aspect of the water cycle in a given area and report what they find to their employer. This research can range from water levels to water composition.

How Hydrologists Benefit Agriculture:

- Irrigation systems for crops
- Minimize impact of agricultural run-off

Hydrologists Study:

- Physics
- Biology



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Farm Facts



Here are some ways farmers save water:

- ⇒ They plant crops that can live with little water.
- ⇒ They water only the crops that need it.
- ⇒ They use watering systems that drip small amounts of water on the plants instead of spraying an entire field.
- ⇒ They use watering systems that put the water right at the crops' roots. This means less water evaporates.



Be a Water Wizard



Here's a magic trick to show your friends. Tell them you can hold a full glass of water upside down without spilling a single drop, just by saying the magic word, "Abracadabra." So, what's the trick?

The water in the glass is frozen! Water is the only natural substance that is found in all three physical states on Earth.

- When water is 32°F or 0°C and colder, it is in a solid state called ice.
- Add heat and it magically turns into a liquid state called water. (33°F- 211°F or 1°C - 99°C)
- Add even more heat and the water turns into a gas state called steam. (212°F or 100°C or above)



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